

DOCKET NO.: MSFT-2738/138343.02
Application No.: 10/624,726
Office Action Dated: March 2, 2007

REMARKS

According to the current Office Action, dated March 2, 2007, claims 1, 3-5 and 10, 12-15, and 17-38 are pending in the Application. These same claims stand rejected.

Telephonic Interview, May 3, 2007

On May 3, 2007, Examiner Cam Y T. Truong and attorney David Platz, Reg. # 60,013, conducted a telephonic interview. During the interview the notion of calculated members was discussed, along with the subject matter of paragraph 0007. The Examiner provided helpful guidance which is implemented herein in order to place the currently pending claims in condition for allowance.

Rejections under 35 U.S.C. § 112

The Applicants have amended claims 1, 10, and 15 in order to overcome the antecedent basis rejections.

Rejections under 35 U.S.C. §§ 102 and 103

The Applicants first address the rejections of the independent claims in the order they appear in the Office Action. Claim 1, also representative of claim 10, recites:

A computerized method for processing a query directed to a multidimensional database comprising:

determining a subset of the database for each member of an input data set specified by the query;

processing the query using any calculated members of the database that is within at least one of the subsets of the database, without the query specifying any calculated members of the database; and

wherein processing the query includes generating the output data set to include any of the calculated members of the database.

(emphasis added). As emphasized above, claim 1 recites “processing the query using any calculated members of the database that is within at least one of the subsets of the database, without the query specifying any calculated members of the database.” The cited art, U.S. Patent No. 6,366,904 (BenHadda et al.), does not disclose this limitation.

In the Office Action (p. 4.), col. 6, ll. 22-45 of Ben Hadda et al. is cited as allegedly disclosing the above mentioned limitation. However, all BenHadda et al. discloses is

automatic extension of results obtained by querying a database, where the “[e]xtension ... leads to *a new table*” (col. 6, ll. 24-25). In contrast, claim 1 recites “processing the query using any *calculated members* of the database that is within at least one of the subsets of the database, without the query specifying any calculated members of the database.” In short, extending queries to *new tables* does not anticipate or render obvious extending queries to *calculated members*.

The specification clearly states that: “A calculated member is a member of a dimension whose value is determined from other members’ values (e.g. by application of mathematical or logical operation).” Application, paragraph 0007. In contrast, a table is commonly understood to be “data arranged in rows and columns.” (see www.webopedia.com). In other words, extending “data arranged in rows and columns” does not anticipate nor render obvious the notion of extending ‘members of dimensions whose values are determined from other members’ values.’ Such disclosure is neither explicit nor inherent. It is not explicit for the obvious reason that data arranged in rows and columns says nothing about members whose values are determined by the application or logical operation of other members; and, moreover, it is not inherent since such a result is not necessary. *See* MPEP § 2112.

Next, claim 15 recites:

A computerized system comprising:

a processor and a computer-readable medium;

an operating environment executing on the processor from the computer-readable medium; and

an OLAP server executing within the operating environment and maintaining a multidimensional database, wherein the OLAP server processes a database query by determining a subset of the database for each member of an input data set specified by the query; *including in the processing of the query any calculated members of the database that are within the at least one of the subsets of the database, without the query specifying any calculated members of the database*; and wherein the OLAP server generates an output data set to include any of the calculated members of the database.

(emphasis added). In relevant part, claim 15 recites “including in the processing of the query any calculated members of the database that are within the at least one of the subsets of the database, without the query specifying any calculated members of the database.”

According to the Office Action (p. 8), col. 10, ll. 25-67 and col. 11, ll. 1-5 of U.S. Patent No. 6,665,682 (DeKimpe et al.) allegedly discloses this limitation. According to DeKimpe et al., “data is requested [read: queried] by specifying one or more sparse index keys (i.e., a sparse index key is an encoding of one member from each sparse dimension) that identify one or more dense data blocks in the multi-dimensional database.” *Id.* In the process of querying, disclosing sparse index keys that identify one or more dense data blocks does not anticipate nor render obvious “including in the processing of the query any calculated members of the database that are within the at least one of the subsets of the database, without the query specifying any calculated members of the database” (claim 15). In short, a data block does not anticipate nor render obvious, neither explicitly or inherently (i.e. necessarily) calculated members.

Next, claim 20, representative in relevant part of claims 23 and 26, recites:

A computerized method for processing a query directed to a multidimensional database, wherein the query specifies an input data set, the method comprising:

determining whether the query includes an extension directing an OLAP server to automatically exclude calculated members of the input data set during the processing of the query;

based on the determination, processing the query using non-calculated members specified by the input data set; and,

wherein processing the query includes generating an output data set based on the determination.

(emphasis added). Claim 20 recites “determining whether the query includes an extension directing an OLAP server to automatically exclude calculated members of the input data set during the processing of the query.”

In the Office Action (p. 14), Figs. 1B and 11 and col. 12, ll. 60-67 of U.S. Patent No. 6,363,377 (Kravets et al.) are used for rejecting the above limitation. In the Office Action, the Examiner points out that “replac[ing] terms of query into nodes” is tantamount to “exclude[ing] calculated members of the input data set during the processing of the query.” The Applicants wholeheartedly disagree. *Replacing terms by nodes* does not anticipate nor render obvious *excluding calculated members*.

Next, claim 30 recites:

A computerized method for processing a query directed to a multidimensional database comprising:

parsing a received query to identify whether the query contains a query extension that indicates specifically how calculated members should be handled in processing the query;

when a query directive of the query extension is identified that directs that calculated members be excluded from the output of the query then processing the query using the non-calculated members specified by the input data set;

when a query directive of the query extension is identified that directs that calculated members be included in the output of the query then performing at least the steps of:

determining a subset of the database for each member of an input data set specified by the query;

processing the query using any calculated members of the database that is within the at least one of the subsets of the database, without the query specifying any calculated members of the database; and

wherein processing the query includes generating an output data set based on the directive of the query extension.

(emphasis added). It has already been explained, above, how the two limitations emphasized above are not disclosed individually or in combination by BenHadda et al., DeKimpe et al., and Kravets et al. (even when taking into account additional passages cited from this reference, namely, on p. 6 of the Office Action, col. 2, ll. 53-56; col. 8, ll. 5-8, where pages [not calculated members] are filtered out). Thus, claim 30 patentably defines over the cited art for the reasons given above.

Lastly, claim 34 is allowable for similar reasons expressed above with respect to claims 1 and 10. Furthermore, insofar as any of the other claims depend from independent claims 1, 10, 15, 20, 23, 26, 30, and 34, they are also allowable for similar reasons.

Conclusion

The Applicants submit that the currently pending claims 1, 3-5, 10, 12-15, and 17-38 are in condition for allowance. Should the Examiner have any questions or concerns, the undersigned can be contacted at 206-903-2461.

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